

IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Currently Amended): A meta-data registration method, comprising the steps of:

detecting at least one of a MIME format and a data name extension of registering data to be registered into a Web server that registers and manages data and meta-data for data;

selecting one procedure corresponding to the MIME format or the extension detected by the detecting step, from a plurality of procedures each provided in correspondence to at least one of a MIME format and an extension and stored in advance, each procedure having a program code for generating the meta-data for data according to a corresponding MIME format or extension, each procedure containing information for specifying formats of the meta-data to be generated according to the corresponding MIME format or extension, and each procedure being designed to generate names and values of the meta-data in formats specified by said information;

generating the meta-data for the registering data by executing the program code of said one procedure selected by the selecting step;[[:]] and

registering the meta-data generated by the generating step in relation to the registering data into the Web server.

Claim 2 (Canceled).

Claim 3 (Currently Amended): The method of claim 1 [[2]], wherein the plurality of procedures are designed such that those meta-data that are generated by different procedures but that have an identical meaning to an application or a user will be given an identical name.

Claim 4 (Currently Amended): The method of claim 1 [[2]], wherein a value of the meta-data is generated by extracting at least one of information contained in the registering data and separately stored information that is acquired according to the information contained in the registering data.

Claim 5 (Previously Presented): The method of claim 1, wherein the detecting step detects the data format by checking information contained in a header of a registration request for the registering data issued to the Web server.

Claim 6 (Previously Presented): The method of claim 1, [[.]] further comprising the steps of:

carrying out at least one of a processing for generating one meta-data indicating non-existence of a corresponding procedure and registering said one meta-data in relation to the registering data, and a processing for notifying the non-existence of the corresponding procedure to an application or a user, when the corresponding procedure of the MIME format or extension detected by the detecting step does not exist among the plurality of procedures stored in advance.

Claim 7 (Previously Presented): The method of claim 1, wherein the plurality of procedures includes a first procedure corresponding to structured documents, which contains a structure information indicating a structure as a format of the meta-data to be generated, extracts a portion specified by the structure information from a document represented by the registering data, and generates the meta-data given by an extracted portion in correspondence to a name specified by the first procedure.

Claim 8 (Original): The method of claim 7, wherein the first procedure defines the structure information for each definition information that defines a document structure, and is designed such that those meta-data that are generated from different documents using different definition information but that have an identical meaning to an application or a user will be given an identical name.

Claim 9 (Previously Presented): The method of claim 1, wherein the Web server manages data using directories, and the method further comprises the steps of:

    additionally selecting another procedure corresponding to one directory for containing data to be added or deleted, from another plurality of procedures provided in correspondence to respective directories and stored in advance, each of the another plurality of procedures having another program code for generating directory meta-data that can be utilized in managing a corresponding directory, when a new data is to be added to or an existing data is to be deleted from the Web server:

    additionally generating new directory meta-data by executing the another program code of the another procedure selected by the additionally selecting step; and

    updating the directory meta-data already registered in relation to said one directory to the new directory meta-data generated by the additionally generating step.

Claim 10 (Previously Presented): The method of claim 1, wherein the Web server manages data using directories, and the method further comprises the steps of:

    notifying an application or a user that issued a registration request for the registering data to the Web server when the meta-data generated for the registering data does not match with the directory meta-data that is used in managing one directory for containing the registering data.

Claim 11 (Previously Presented): The method of claim 1, wherein the Web server manages data using directories, and the method further comprises the steps of:

registering the meta-data generated for the registering data in relation to the registering data when the meta-data generated for the registering data does not match with directory meta-data that is used in managing one directory for containing the registering data, and not registering the meta-data generated for the registering data otherwise.

Claim 12 (Previously Presented): The method of claim 11, wherein further comprising the step of:

managing the registering data at the Web server by using the meta-data registered in relation to the registering data when the meta-data registered in relation to the registering data exists, or by using the meta-data for said one directory otherwise.

Claim 13 (Currently Amended): A meta-data registration device, comprising:

a detection unit configured to detect at least one of a MIME format and a data name extension of registering data to be registered into a Web server that registers and manages data and meta-data for data;

a selection unit configured to select one procedure corresponding to the MIME format or the extension detected by the detection unit, from a plurality of procedures each provided in correspondence to at least one of a MIME format and an extension and stored in advance, each procedure having a program code for generating the meta-data for data according to a corresponding MIME format or extension, each procedure containing information for specifying formats of the meta-data to be generated according to the corresponding MIME

format or extension, and each procedure being designed to generate names and values of the meta-data in formats specified by said information; and

an output unit configured to output the meta-data for the registering data generated by executing the program code of said one procedure selected by the selection unit, to the Web server.

Claim 14 (Previously Presented): The meta-data registration device of claim 13, further comprising:

a generation unit configured to generate the meta-data for the registering data by executing the program code of said one procedure selected by the selection unit, wherein the output unit registers the meta-data generated by the generation unit in relation to the registering data into the Web server.

Claim 15 (Previously Presented): The meta-data registration device of claim 13, further comprising:

an acquisition unit configured to acquire the meta-data for the registering data generated by executing the program code of said one procedure selected by the selection unit, wherein the output unit registers the meta-data for the registering data acquired by the acquisition unit in relation to the registering data into the Web server.

Claim 16 (Currently Amended): A Web server device, comprising:

a request processing unit configured to receive and process a registration request for registering data to be registered into the Web server device;

a management unit configured to register the registering data according to the registration request and manage data and meta-data for data;

a detection unit configured to detect at least one of a MIME format and a data name extension of the registering data;

a selection unit configured to select one procedure corresponding to the MIME format or the extension detected by the detection unit, from a plurality of procedures each provided in correspondence to at least one of a MIME format and an extension and stored in advance, each procedure having a program code for generating the meta-data for data according to a corresponding MIME format or extension, each procedure containing information for specifying formats of the meta-data to be generated according to the corresponding MIME format or extension, and each procedure being designed to generate names and values of the meta-data in formats specified by said information;

a generation unit configured to generate the meta-data for the registering data by executing the program code of said one procedure selected by the selection unit; and

a registration unit configured to register the meta-data generated by the generation unit into the management unit.

Claim 17 (Currently Amended): A computer usable medium having computer readable program code embodied therein for causing a computer to function as a meta-data registration device, the computer readable program codes include:

a first computer readable program code for causing said computer to detect at least one of a MIME format and a data name extension of registering data to be registered into a Web server that registers and manages data and meta-data for data;

a second computer readable program code for causing said computer to select one procedure corresponding to the MIME format or the extension detected by the first computer readable program code, from a plurality of procedures each provided in correspondence to at least one of a MIME format and an extension and stored in advance,

each procedure having a program code `[[code]]` for generating the meta-data for data according to a corresponding MIME format or extension, each procedure containing information for specifying formats of the meta-data to be generated according to the corresponding MIME format or extension, and each procedure being designed to generate names and values of the meta-data in formats specified by said information; and

a third computer readable program code for causing said computer to output the meta-data for the registering data generated by executing the program code of said one procedure selected by the second computer readable program code, to the Web server.

Claim 18 (Previously Presented): The computer usable medium of claim 17, wherein the computer readable program codes further include:

a fourth computer readable program code for causing said computer to generate the meta-data for the registering data by executing the program code of said one procedure selected by the second computer readable program code, wherein the third computer readable program code registers the meta-data generated by the fourth computer readable program code in relation to the registering data into the Web server.

Claim 19 (Previously Presented): The computer usable medium of claim 17, wherein the computer readable program codes further include:

a fourth computer readable program code for causing said computer to acquire the meta-data for the registering data generated by executing the program code at said one procedure selected by the selection unit, wherein the third computer readable program code registers the meta-data for the registering data acquired by the fourth computer readable program code in relation to the registering data into the Web server.

Claim 20 (Currently Amended): A computer usable medium having computer readable program codes embodied therein for causing a computer to function as a Web server device, the computer readable program codes include:

a first computer readable program code for causing said computer to receive and process a registration request for registering data to be registered into the Web server device;

a second computer readable program code for causing said computer to register the registering data according to the registration request and manage data and meta-data for data;

a third computer readable program code for causing said computer to detect at least one of a MIME format and a data name extension of the registering data:

a fourth computer readable program code for causing said computer to select one procedure corresponding to the MIME format or the extension detected by the third computer readable program code, from a plurality of procedures each provided in correspondence to at least one of a MIME format and an extension and stored in advance, each procedure having a program code for generating the meta-data for data according to a corresponding MIME format or extension, each procedure containing information for specifying formats of the meta-data to be generated according to the corresponding MIME format or extension, and each procedure being designed to generate names and values of the meta-data in formats specified by said information;

a fifth computer readable program code for causing said computer to generate the meta-data for the registering data by executing the program code of said one procedure selected by the fourth computer readable program code; and

a sixth computer readable program code for causing said computer to register the meta-data generated by the fifth computer readable program code into a management unit in the Web server.



Claim 21 (Currently Amended): A meta-data registration method, comprising the steps of:

detecting at least one of a MIME format and a data name extension of registering data to be registered into a Web server that registers and manages data and meta-data for data on a name space having tree-like hierarchical structure;

selecting one procedure corresponding to the MIME format or the extension detected by the detecting step, from a plurality of procedures each provided in correspondence to at least one of a MIME format and an extension and stored in advance, each procedure having a program code for generating the meta-data for data according to a corresponding MIME format or extension, extensions each procedure containing information for specifying formats of the meta-data to be generated according to the corresponding MIME format or extension, and each procedure being designed to generate names and values of the meta-data in formats specified by said information;

generating the meta-data for the registering data by executing the program code of said one procedure selected by the selecting step; and

registering the meta-data generated by the generating step in relation to the registering data into the Web server.